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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,134	12/22/2001	Roberto Coccioli	01CON270P	4938

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EXAMINER

WILLIAMS, ALEXANDER O

ART UNIT PAPER NUMBER

2826

DATE MAILED: 06/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/026,134

Applicant(s)

COCCIOLI ET AL.

Examiner

Alexander O Williams

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-- Th MAILING DATE of this communication appears on th cover sh et with th correspond nce address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5-10 and 17-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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Serial Number: 10/026134 Attorney's Docket #: 01CON270P
Filing Date: 12/22/2001;

Applicant: Coccoili et al.

Examiner: Alexander Williams

Applicant's Amendment/election with traverse of Group I (device claims 1-4 and 11-16) in Paper No. 5 is acknowledged.

Applicant's arguments on pages 3-9 are not found to be persuasive. The species election is still to be considered under one application filed. However, the restriction requirement was necessary for the many species to be search by the examiner. Upon allowance of the elected claims, the remaining claims will be examiner. The Examiner would be unduly burdened to evaluate all claims fully on their merit at the full time.

This application contains claims 5-10 and 17-20 drawn to an invention non-elected with traverse in Paper No. 5.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The use of the trademark AUS-5 solder has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

The drawings are objected to under 37 CFR 1.83(a) because they fail to show capacitor as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply

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to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 to 4 are rejected under 35 U.S.C. § 102(b) as being anticipated by Wiklof et al. (U.S. Patent # 6,114,962).

In claim 1, Wiklof et al. (figures 1 to 3) specifically figure 2 show a structure comprising: a laminate substrate **18,10** having a top surface for receiving a semiconductor die **26**; an antenna element **28** situated on said top surface of said laminate substrate, said antenna element coupled to a laminate substrate bond pad **29**; a bonding wire **30** providing an electrical connection between said laminate substrate bond pad and a semiconductor die bond pad (not shown, but inheritly connected to 30 on top of 26).

Claims 1 to 4 are rejected under 35 U.S.C. § 102(e) as being anticipated by Pollack (U.S. Patent # 6,534,711 B1).

In claim 1, Pollack (figures 1 to 9D) specifically figure 7D show a structure comprising: a laminate substrate **104** having a top surface for receiving a semiconductor die **720**; an antenna element **(750,550)** situated on said top surface of said laminate substrate, said antenna element coupled to a laminate substrate bond pad **(portion connected to 730b,730f)**; a bonding wire **732** providing an electrical connection between said laminate substrate bond pad and a semiconductor die bond pad **726**.

Claims 11 to 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wiklof et al. (U.S. Patent # 6,114,962).

For example, in claim 11, Wiklof et al. (figures 1 to 3) specifically figure 2 show a structure comprising: a laminate substrate **18,10** having a top surface for receiving a semiconductor die **26**; an antenna element **28** situated on said top surface of said laminate substrate, said antenna element coupled to a laminate substrate bond pad **29**; a bonding wire **30** providing an electrical connection between said laminate substrate bond pad and a semiconductor die bond pad (not shown, but inheritly connected to 30 on top of 26). Wiklof et al. fail to explicitly show a second semiconductor die and a second antenna on the surface of the laminated substrate. However, as detailed above Wiklof et al. does disclose a semiconductor die and antenna on the substrate surface. It would be a matter of designer's choice to have a second semiconductor die and a second antenna on the surface of the laminated substrate for the purpose of having multiple device manufactured.

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Therefore, it would have been obvious to one of ordinary skill in the art to use the teaching of Wiklof et al.'s single chip and antenna on the substrate surface to form a device with a semiconductor die and antenna on the substrate surface. It would be a matter of designer's choice to have a second semiconductor die and a second antenna on the surface of the laminated substrate for the purpose of having multiple device manufactured.

Claims 11 to 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pollack (U.S. Patent # 6,534,711 B1).

In claim 1, Pollack (figures 1 to 9D) specifically figure 7D show a structure comprising: a laminate substrate **104** having a top surface for receiving a semiconductor die **720**; an antenna element (**750,550**) situated on said top surface of said laminate substrate, said antenna element coupled to a laminate substrate bond pad (**portion connected to 730b,730f**); a bonding wire **732** providing an electrical connection between said laminate substrate bond pad and a semiconductor die bond pad **726**. fail to explicitly show a second semiconductor die and a second antenna on the surface of the laminated substrate. However, as detailed above Pollack does disclose a semiconductor die and antenna on the substrate surface. It would be a matter of designer's choice to have a second semiconductor die and a second antenna on the surface of the laminated substrate for the purpose of having multiple device manufactured.

Therefore, it would have been obvious to one of ordinary skill in the art to use the teaching of Pollack's single chip and antenna on the substrate surface to form a device with a semiconductor die and antenna on the substrate surface. It would be a matter of designer's choice to have a second semiconductor die and a second antenna on the surface of the laminated substrate for the purpose of having multiple device manufactured.

The listed references are cited as of interest to this application, but not applied at this time.

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Field of Search	Date
U.S. Class and subclass: 257/684,728,724,723,725,685,528	6/19/03
Other Documentation: foreign patents and literature in 257/684,728,724,723,725,685,528	6/19/03
Electronic data base(s): U.S. Patents EAST	6/19/03

Papers related to this application may be submitted to Technology Center 2800 by facsimile transmission. Papers should be faxed to Technology Center 2800 via the Technology Center 2800 Fax center located in Crystal Plaza 4-5B15. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center 2800 Fax Center number is (703) 308-7722 or 24. Only Papers related to Technology Center 2800 APPLICATIONS SHOULD BE FAXED to the GROUP 2800 FAX CENTER.

Any inquiry concerning this communication or any earlier communication from the examiner should be directed to ***Examiner Alexander Williams*** whose telephone number is **(703) 308-4863**.

Any inquiry of a general nature or relating to the status of this application should be directed to the ***Technology Center 2800 receptionist*** whose telephone number is **(703) 308-0956**.

6/19/03



Primary Patent Examiner
Alexander O. Williams